

## ABSTRACT

A food ingredient grinding assembly (10) with a removable ingredient hopper (32,34) made of translucent material to enable viewing the ingredient within the hopper through a window opening (40,42) and carries a closure assembly (Figs.4A and 4B) that automatically closes an outlet opening (112) when the hopper is removed from the housing (12) and when installed is controlled by a solenoid (118) that when energized pushes a plate (116) to align an opening (126) in the plate with the outlet opening (112) of the hopper. When the solenoid is not energized or when the hopper is removed, a spring (118) automatically returns the plate to a closed position. Alternatively, the closure plate (116) is pulled by the solenoid (Figs.6A, 6B, 7A, 7B, 8A and 8B) through the use of vertically releasable connectors or is pushed or pulled open by means of an electromagnet (Figs.9A, 9B, 10A and 10B). Because the closure assembly (114) is carried by the hopper and the solenoid and electromagnet is not attached to the closure assembly by fixed fasteners the hopper may be removed without the use of any tools simply by lifting it out of the housing and may be installed by simply lowering the hopper into the housing through the housing top.